

# Test Data For PMP7902 1/21/2013





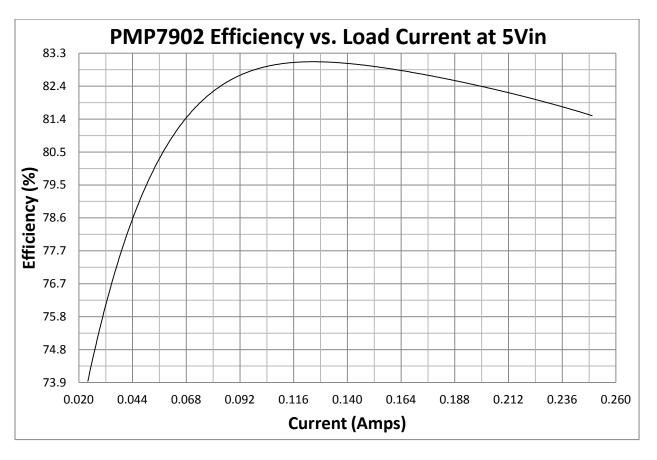
# Test SPECIFICATIONS

Vin min	4.5
Vin max	5.5
Vout	5V
lout	0.25A Max



### TYPICAL PERFORMANCE

# **EFFICIENCY**

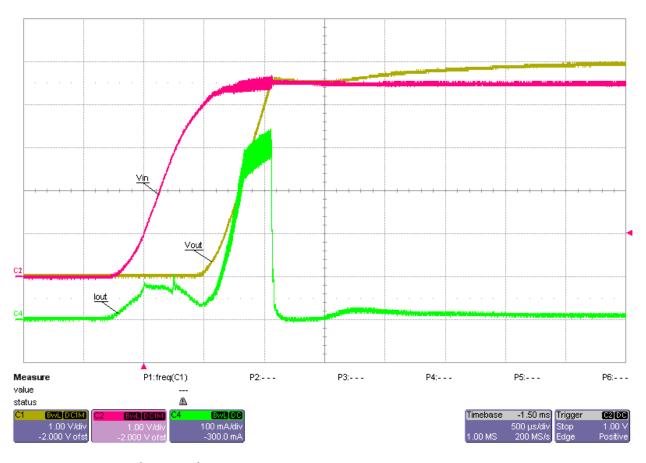


Vin(V)	lin(A)	Vout(V)	Iout(A)	Pin(W)	Pout(W)	Efficiency(%)
5.003	0.033	5.025	0.024	0.163	0.121	73.9
5.003	0.061	5.025	0.048	0.305	0.242	79.2
5.003	0.093	5.025	0.076	0.467	0.383	82.1
5.002	0.122	5.025	0.101	0.612	0.506	82.6
5.002	0.151	5.024	0.125	0.753	0.627	83.3
5.002	0.183	5.024	0.151	0.915	0.758	82.8
5.002	0.212	5.024	0.175	1.061	0.879	82.8
5.002	0.243	5.024	0.199	1.217	1.002	82.3
5.002	0.275	5.024	0.224	1.375	1.127	82.0
5.002	0.307	5.024	0.249	1.537	1.253	81.5



# **Waveforms**

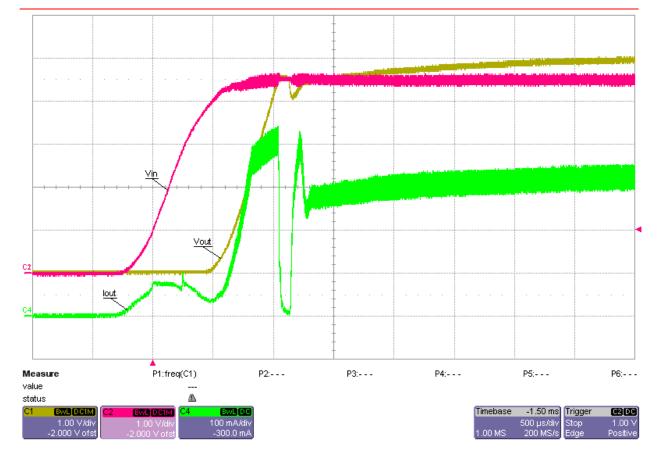
#### **Startup**



#### Startup into No Load (at 4.5Vin)

<sup>\*</sup>Note: Channel 4 is actually Input Current, not output current! Label is incorrect!

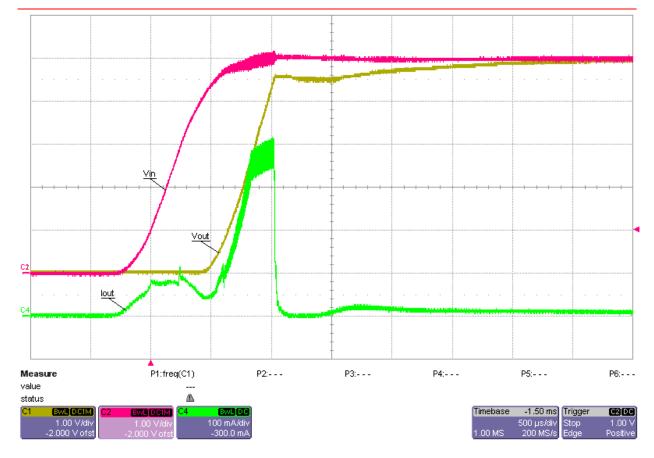




Startup into full (0.25A) Load (at 4.5Vin)

<sup>\*</sup>Note: Channel 4 is actually Input Current, not output current! Label is incorrect!

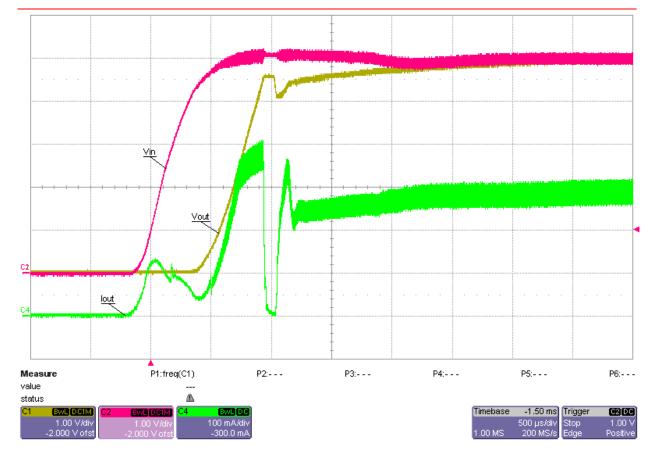




### Startup into No Load (at 5Vin)

<sup>\*</sup>Note: Channel 4 is actually Input Current, not output current! Label is incorrect!

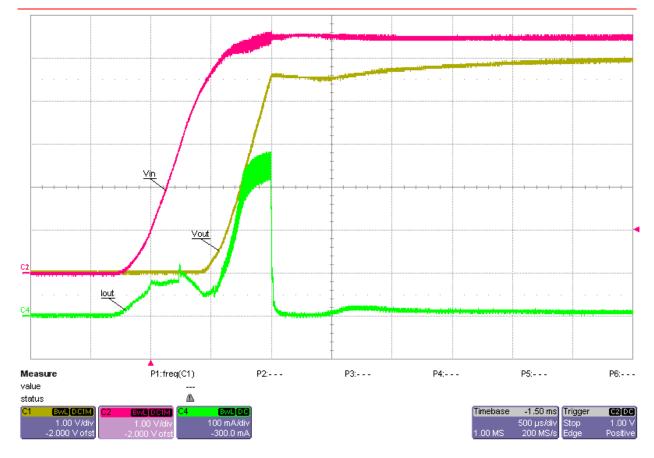




Startup into full (0.25A) Load (at 5Vin)

<sup>\*</sup>Note: Channel 4 is actually Input Current, not output current! Label is incorrect!

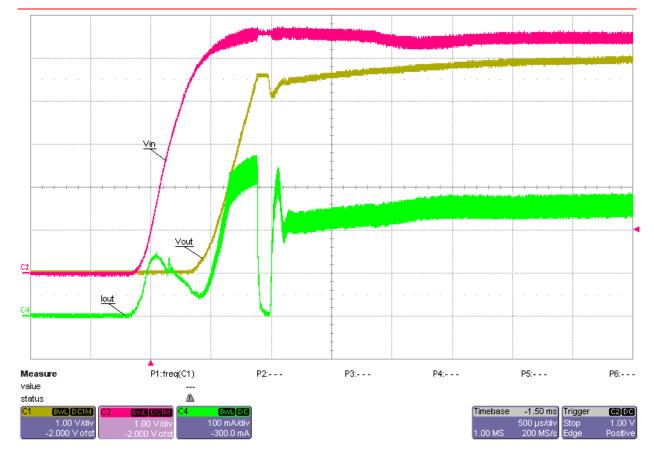




### Startup into No Load (at 5.5Vin)

<sup>\*</sup>Note: Channel 4 is actually Input Current, not output current! Label is incorrect!



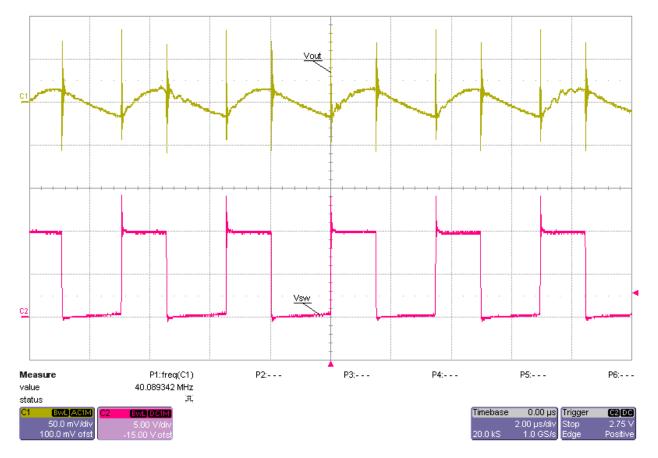


Startup into full (0.25A) Load (at 5.5Vin)

<sup>\*</sup>Note: Channel 4 is actually Input Current, not output current! Label is incorrect!

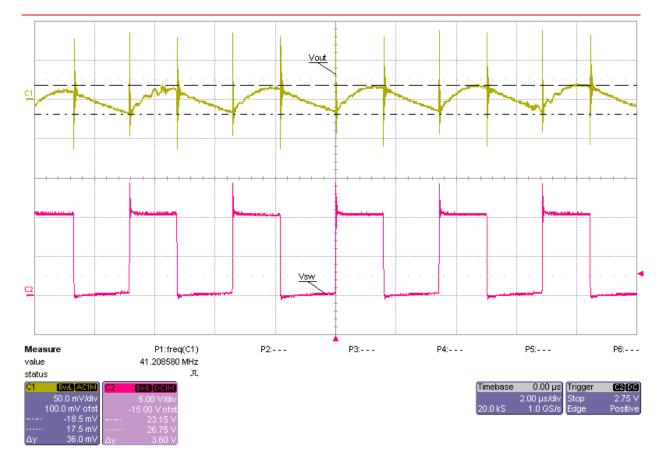


#### **Output Voltage Ripple and Switch Node Voltage**



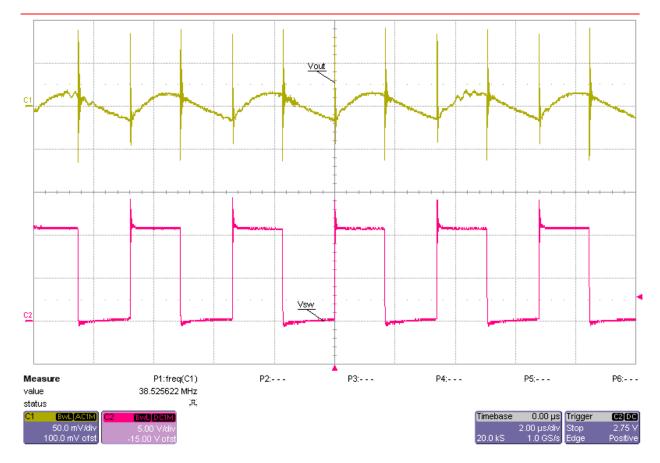
Output Voltage Ripple and Switch Node at 4.5Vin and full (0.25A) load (Vripple ≈ 35mVp-p)





Output Voltage Ripple and Switch Node at 5Vin and full (0.25A) load (Vripple ≈ 36mVp-p)

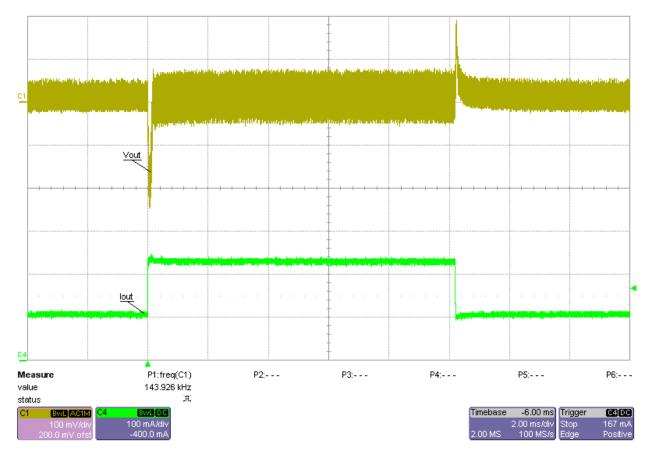




Output Voltage Ripple and Switch Node at 5.5Vin and full (0.25A) load (Vripple ≈ 35mVp-p)

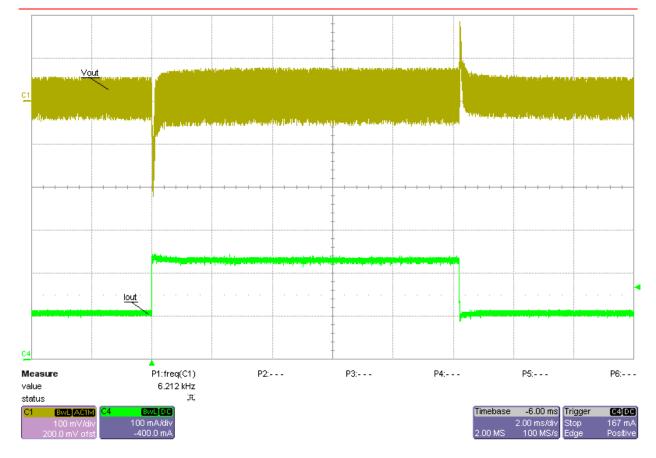


#### **Load Transient Response**



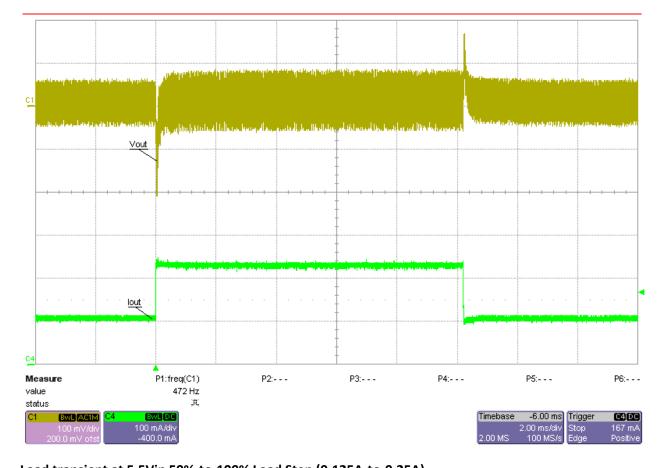
Load transient at 4.5Vin 50%-to-100% Load Step (0.125A-to-0.25A)





Load transient at 5Vin 50%-to-100% Load Step (0.125A-to-0.25A)

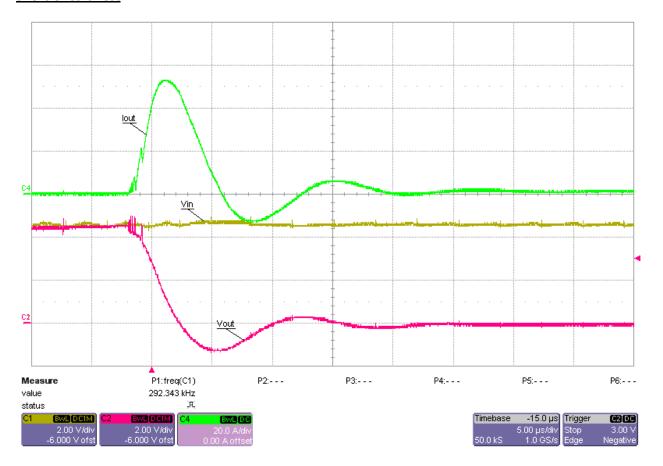




Load transient at 5.5Vin 50%-to-100% Load Step (0.125A-to-0.25A)

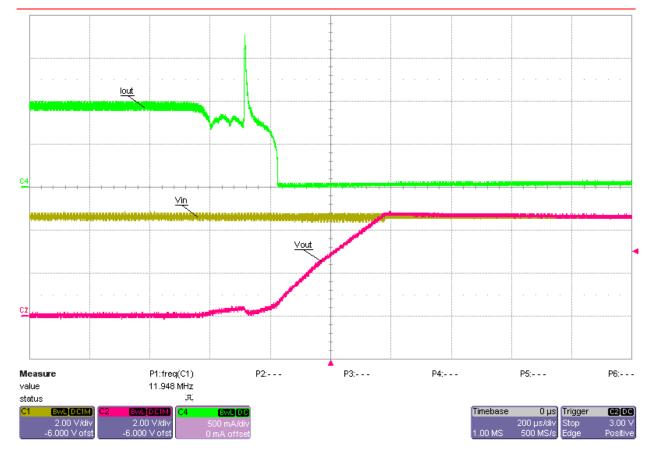


### **Short Circuit Test**



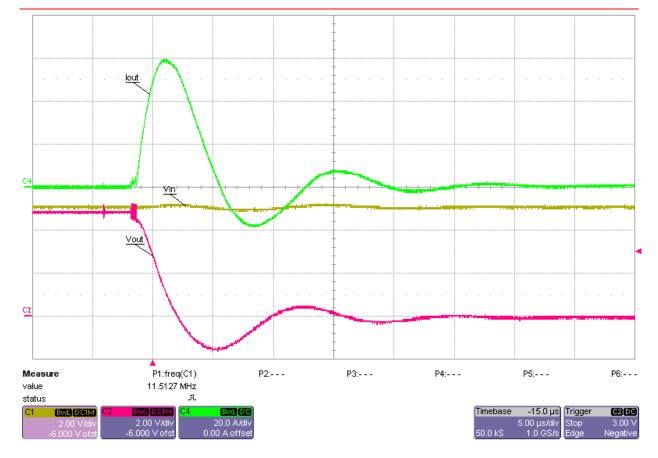
# 4.5Vin Short Circuit Application





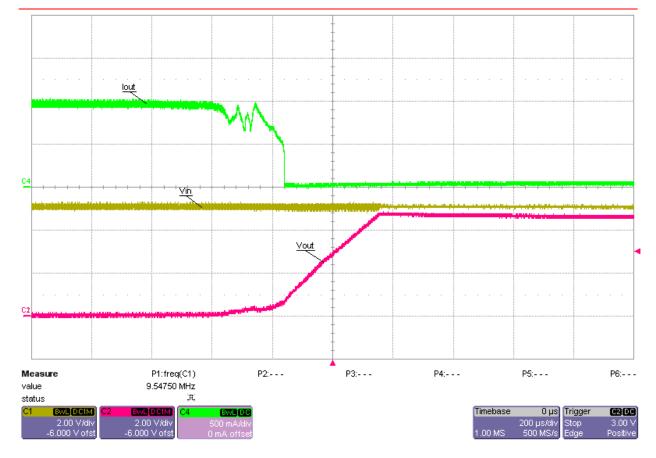
**4.5Vin Short Circuit Recovery** 





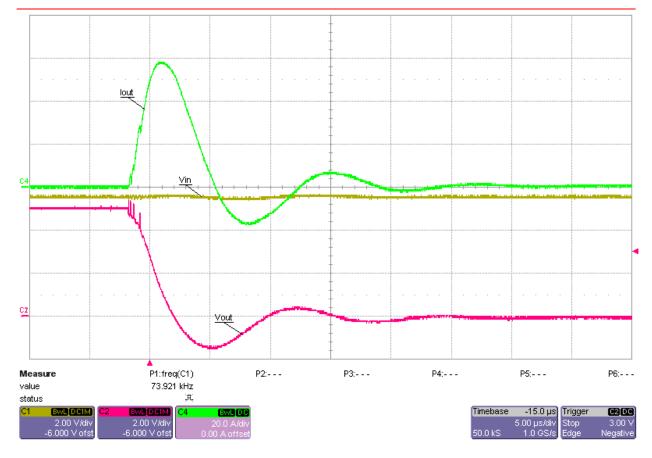
**5Vin Short Circuit Application** 





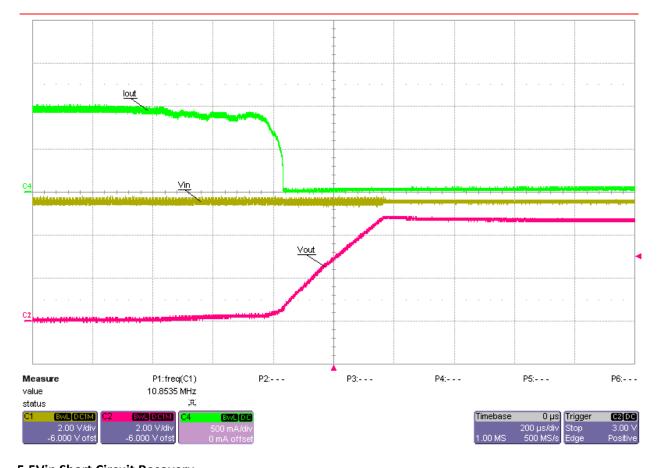
**5Vin Short Circuit Recovery** 





**5.5Vin Short Circuit Application** 





**5.5Vin Short Circuit Recovery** 



# **Thermal Data**

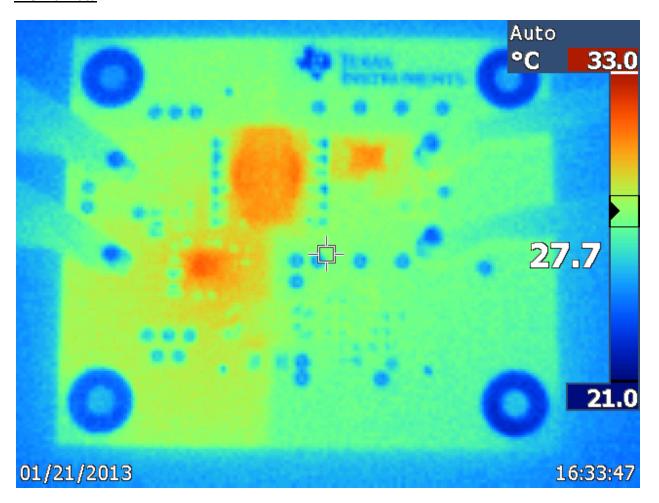
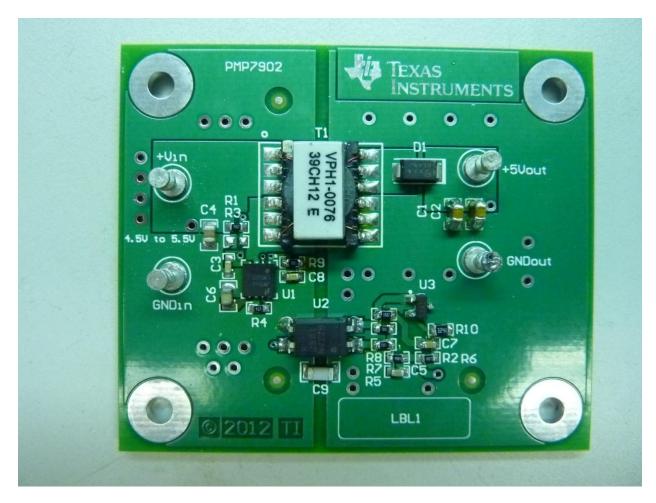


Image taken after board reached thermal equilibrium.



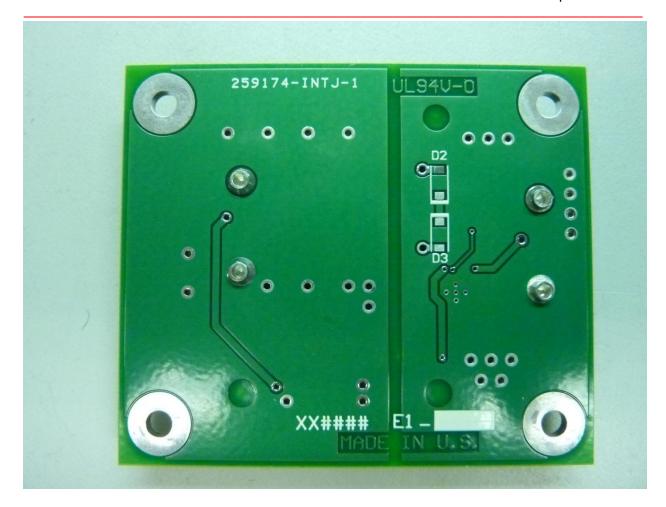
### **FABRICATION**

Board Dimensions: 2.35" x 2"



**Top Side** 





**Bottom Side** 

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